

Interaction Analysis and Contribution of Total Mudharabah Deposits in Sharia Banking in Indonesia 2015-2020 Period

Saparuddin Siregar¹, Tuti Anggraini², Asmiwarti³

¹Universitas Islam Negeri Sumatera Utara, Indonesia

^{2,3}Postgraduate Program in Universitas Islam Negeri Sumatera Utara, Indonesia

saparuddinss@yahoo.com, tutianggraini47@gmail.com, asmisinaga1994@gmail.com

Abstract

This study aims to determine the interaction and contribution of Total Mudharabah Deposits, GDP, BI Rate, Inflation and Profit Sharing in Islamic Banking in Indonesia. The research approach used is a quantitative research approach with the Vector Auto Regression (VAR) analysis technique of the VECM model supported by Stationarity Test, Model Stability Test, Optimal Lag Length Test, Granger Causality Test, Cointegration Test, Impulse Response Function Test, and Variance Decomposition Test. assisted by Software Eviews 9. This study uses a sample from 2015 to 2020. The results show that there is a causal relationship between GDP and Mudharabah Deposits, Profit Sharing on Mudharabah Deposits, Inflation on BI Rate, BI Rate on Profit Sharing. In the long-term relationship, BI Rate and Inflation have a positive effect on Mudharabah Deposits, while GDP and Profit Sharing have a negative effect on Mudharabah Deposits. In the short term, the GDP variable has a positive and significant effect on inflation. Based on the Impulse Response Function (IRF) analysis, all variables in the short term have a stable response and experience few shocks and based on the Forecast Error Variance Decomposition (FEVD) analysis, the GDP variable is the variable that has the largest response and the largest composition compared to other variables.

Keywords

mudharabah deposits; GDP; BI rate; inflation and profit sharing



I. Introduction

The development of Islamic banking in Indonesia from year to year has made significant progress. The banking world is inseparable from human life, because all human activities involve finance and require banking facilities (Tarigan, 2020). Bank is a company engaged in the financial sector, meaning that the banking business is always related to financial matters (Rosmika, 2019). The bank is simply defined as a financial institution whose business activities are collecting funds from the public (Dianto, 2020). This is indicated by the number of Sharia Commercial Banks (BUS) as many as 14 banks with a total of 1,919 offices with 480 branch offices and 1,243 sub-branches. The number of Sharia Business Unit (UUS) offices is 20, with 381 sharia business unit offices, 160 branch offices and 159 sub-branch offices. Sharia People's Funding Banks (BPRS) are 164 banks with 617 offices with 6,620 employees. The total assets of Islamic Commercial Banks (BUS) are 350,354 billion, while the total assets of Sharia Business Units (UUS) are 174,200. This is certainly growing rapidly when compared to 1992-1998 when there was only one Islamic bank in Indonesia. Abdullah Firman Wibowo in an interview with CNBC Indonesia said that in the last five years there have been dynamics that have affected the growth rate of Islamic

banking, such as the consolidation of several Islamic commercial banks and the slowdown in the real sector. Irfan Syauqi Beik said that the obstacle that affects the performance of Islamic banks is the problem of community sharia literacy which is still low, he explained that the community is very familiar with the interest rate reference.

As a country with the largest Muslim majority population in the world, of course, it has quite promising potential for Islamic finance in the future. This can certainly happen if there is a synergy between policy holders in this case is the government and also public awareness of sharia-based halal transactions that continue to be enforced in economic principles. The increase in the last few years for sharia-based products and services in Indonesia has made the government observe this as an important moment in the milestone of the sharia economy in Indonesia. This optimistic attitude prompted the government to finally merge the three state-owned Islamic banks into a new intensity which was named Indonesian Islamic Bank or BSI.

In general, Islamic banks have three main functions, namely collecting funds from the public, channeling them back to people who need funds and providing services in the form of Islamic banking services. In accordance with the bank's function as an intermediary, banks need funds for their operational activities. The bank's funds are sourced from the bank's own funds, then from the wider community and from other institutions (Kasmir, 2012). One source of bank funds is funds that come from the wider community or commonly called third party funds. Third party funds are funds originating from the community, both individuals and business entities obtained by banks using savings products owned by banks (Kuncoro, 2002).

Funds originating from the wider community or often referred to as third party funds are the most important source of funds for the operations of a bank and are a measure of the success of the bank if the bank is able to finance its operations from this source of funds. In general, these public funds can be collected by banks with savings products such as demand deposits, savings deposits and time deposits. Current accounts are deposits that can be withdrawn at any time by using a check/bilyet giro, or other means of payment orders or by book transfer. Savings are deposits that can only be withdrawn according to certain agreed conditions. Time deposits are deposits whose withdrawals can only be made at a certain time based on an agreed agreement.

When referring to the development of Islamic banking in Indonesia published by the Financial Services Authority (OJK), the most desirable mudharabah deposits are 1-month mudharabah deposits compared to mudharabah deposits with other terms. In addition, mudharabah deposits experienced fluctuations, where in January mudharabah deposit funds amounted to Rp. 142,177 (billion), in February and March experienced an increase of Rp. 147.414 (billion), in April, May, June, July, mudharabah deposits decreased by Rp 131,014 (billion), then in August it increased by Rp. 135,866 (billion), in September it decreased again by Rp. 132,467 (billion), in October and November it increased by Rp. 146,391 (billion),

The fluctuations that occur in the collection of mudharabah deposit funds are caused by several factors. According to Rivai and Arifin, the bank's efforts to raise funds are influenced by factors originating from outside the bank (external) and sourced from the bank itself (internal). External factors that influence the collection of banking funds (current accounts, savings and time deposits) include economic conditions, government activities and conditions, money market and capital market conditions or developments, government policies and Indonesian bank regulations. Meanwhile, internal factors include bank products, profit-sharing policies, service quality and the safety of funds (money) deposited or invested in the bank and the return on the money invested are factors that are considered.

II. Review of Literature

Based on Law No. 10 of 1998, time deposits are deposits whose withdrawals can only be made at a certain time based on the depositor's agreement with the bank. In this case, the terms of the withdrawal period referred to can only be carried out in accordance with the time period that has been determined or agreed to have ended which is commonly referred to as the maturity date. Deposits using a mudharabah contract. Mudharabah investment deposits through third party funds which consist of individuals or other legal entities that can be withdrawn at a certain time according to a predetermined maturity date and receive profit sharing in accordance with the provisions of the mudharabah contract.

Factors Affecting Mudharabah Deposits

a. Gross Domestic Product (GDP)

GDP is the value of goods and services produced in a country in a certain period. Gross domestic product is a concept in the calculation of national income (Sukirno, 2015). In macroeconomic analysis, the term "national income" is always used and usually the term is intended to express the value of goods and services produced in a country. Thus, in this concept, the term national income represents the meaning of gross domestic product (GDP) or gross national product (GNP).

b. BI Rate

The Bank Indonesia interest rate (SBI) or BI-Rate is the reference interest rate of Bank Indonesia (BI), namely the monetary policy rate (policy rate) which is used as a reference in the implementation of monetary control operations to direct the weighted average of the SBI interest rate to one month which is the result of an Open Market Operation (OPT) auction, namely the interest rate for liquidity adjustment instruments is around the BI-Rate. As the highest monetary power, BI has the task of maintaining economic stability, including two important things, namely when the BI-rate is directly or indirectly related to inflation conditions and the stability of the rupiah exchange rate. The economy is said to be stable if these two indicators can be controlled in a moderate system

c. Inflation

Inflation is an economic phenomenon that shows a continuous increase in the general price level. The condition for inflation is that there is a general and continuous increase in prices. If only one or two types of goods increase, it is not inflation (Hasyim, 2016). Inflation can be described as an economic condition characterized by a rapid increase in prices, which causes a decrease in purchasing power, which is often followed by a decrease in investment-savings due to an increase in public consumption in a long time (Sholihin, 2010). As for the impact of inflation on individuals and society, among others decline in the level of community welfare, and worsen the distribution of income. Policies taken to overcome inflation are fiscal policy and monetary policy (Huda, 2013).

d. Profit Sharing

Profit sharing is a form of return (earnings of profit when an activity occurs) from an investment contract that cannot be ascertained from time to time and may not remain in Islamic banks (Rivai, 2009). Profit sharing is a fund processing system in the Islamic economy, namely the distribution of business results between the owners of capital (shahibul maal) and managers (mudharib) (Antonio, 2007). Profit sharing is also part of the benefits for company employees, either in the form of annual cash payments based on annual income, or in the form of weekly or monthly funding. The approach used in the calculation of profit

sharing or the principle of business division, which includes Revenue Sharing and Profit Sharing. Revenue sharing is based on sales or gross revenue for the business before deducting expenses. Profit sharing in revenue sharing is calculated by multiplying the agreed ratio with gross revenue. Profit loss sharing is based on the profit or loss of the business of both parties, in terms of the sharia bank line and the customer will benefit from the results of the operation and share in the loss if the business suffers a loss.

III. Research Methods

This research was conducted at PT. PLN (State Electricity Company) Persero Area Labuhanbatu Regency. PT. PLN (State Electricity Company) Persero Area Labuhanbatu Regency has 40 employees, then all employees are made into the population in this study. The sample in this study uses non-probability sampling with saturated sampling technique, where the entire population is used as a sample. Data acquisition can be done through distributing questionnaires, observing, and also conducting interviews with related employees. The data from this study were then tested using several analytical techniques such as classical assumption test, multiple linear regression test, hypothesis testing, and coefficient of determination.

IV. Discussion

4.1 Stationary Test

The data stationarity test on the variables tested in this study used the unit root test method with the Augmented Dickey-Fuller (ADF) type test with a significance level of 5%, stationary data at the 1st Difference level. There are also the results of the stationary test of the data for the variables studied, as follows:

Table 1. The Results of the Stationary Test

No.	Research variable	ADF t-Statistics	Critical Value Test		Prob*	Description
			level	Value		
1	DEP M	-10.15023	1% level	-3.527045	0.0001	Stationary
			5% level	-2.903566		
			10% level	-2.589227		
2	GDP	-13,62730	1% level	-3.527045	0.0001	Stationary
			5% level	-2.903566		
			10% level	-2.589227		
3	BI RATE	-5.043341	1% level	-3.527045	0.0001	Stationary
			5% level	-2.903566		
			10% level	-2.589227		
4	INFLATION	-7.208988	1% level	-3.527045	0.0000	Stationary
			5% level	-2.903566		
			10% level	-2.589227		
5	B RESULT	-9.458957	1% level	-3.528515	0.0000	Stationary
			5% level	-2.904198		
			10% level	-2.589562		

4.2 The Results of Data Stability Test

Testing the stability of the VAR model on the DEPM (Y) model was carried out using a root of characteristic polynomial table, with an optimal lag of 1-8. The results of the root of characteristic polynomial with the table show the overall value of the modulus is less than 1 (one), which means that the VAR model formed is also stable.

Table 2. The Result of Characteristic Polynomial Root

Roots of Characteristic Polynomial

Endogenous variables: D(LNDEPM) D(LNPDB)

D(BIRATE) D(INFLATION)

D(RESULT)

Exogenous variables: C

Lag specification: 1 8

Date: 11/09/21 Time: 11:54

Root	Modulus
0.980849	0.980849
0.126071 + 0.961490i	0.969720
0.126071 - 0.961490i	0.969720
-0.650883 - 0.717629i	0.968834
-0.650883 + 0.717629i	0.968834
-0.194819 - 0.946719i	0.966557
-0.194819 + 0.946719i	0.966557
0.423867 + 0.864240i	0.962587
0.423867 - 0.864240i	0.962587
0.737675 + 0.617933i	0.962292
0.737675 - 0.617933i	0.962292
-0.821688 - 0.480276i	0.951754
-0.821688 + 0.480276i	0.951754
-0.901343 - 0.229793i	0.930174
-0.901343 + 0.229793i	0.930174
0.911414 + 0.167104i	0.926606
0.911414 - 0.167104i	0.926606
0.743964 + 0.524478i	0.910253
0.743964 - 0.524478i	0.910253
0.529982 + 0.739177i	0.909540
0.529982 - 0.739177i	0.909540
-0.715685 + 0.553456i	0.904721
-0.715685 - 0.553456i	0.904721
-0.376964 + 0.821380i	0.903752
-0.376964 - 0.821380i	0.903752
0.855692 + 0.269443i	0.897111
0.855692 - 0.269443i	0.897111
-0.105917 - 0.885270i	0.891584
-0.105917 + 0.885270i	0.891584
-0.878550 - 0.024415i	0.878889
-0.878550 + 0.024415i	0.878889
-0.455612 - 0.734713i	0.864515
-0.455612 + 0.734713i	0.864515
0.218963 + 0.802194i	0.831541

0.218963 - 0.802194i	0.831541
-0.640733 + 0.208541i	0.673816
-0.640733 - 0.208541i	0.673816
0.591796	0.591796
0.019236 + 0.329808i	0.330369
0.019236 - 0.329808i	0.330369

No root lies outside the unit circle.

VAR satisfies the stability condition.

4.3 The Results of Optimal Lag Length Test

The determination of the lag length to be used in the VAR model can be seen in the results of the VAR Lag Order Selection Criteria test which shows that the shortest lag is based on the Final Prediction Error (FPE) and Hannan-Quinn Criterion (HQ) optimal criteria for lag 1, which can be seen by the presence of star sign (*).

Table 3. The Results of Optimal Lag Length Test

VAR Lag Order Selection Criteria

Endogenous variables: D (LNDEPM) D (LNPDB) D(BIRATE) D(INFLATION)
D(BHASIL)

Exogenous variables: C

Date: 11/09/21 Time: 12:00

Sample: 2015M01 2020M12 Included observations: 63

lag	LogL	LR	FPE	AIC	SC	HQ
0	1101.297	NA	5.28e-22	-34,80307	-34,63298*	-34.73617
1	1145,081	79.22930	2.92e-22*	-35.39941	-34.37887	-34.99802*
2	1159,884	24.43663	4.10e-22	-35.07569	-33.20470	-34.33982
3	1177,745	26,64920	5.34e-22	-34.84904	-32.12760	-33,77869
4	1193,246	20.66793	7.79e-22	-34.54749	-30.97560	-33.14265
5	1215,933	26,64816	9.54e-22	-34.47406	-300.05172	-32.73473
6	1254,680	39.36233*	7.57e-22	-34.91048	-29.63769	-32.83666
7	1288,990	29.40822	7.72e-22	-35.20602	-29.08278	-32.79772
8	1324,625	24.88840	8.87e-22	-35,54366*	-28.56997	-32.80087

* indicates lag order selected by the criterion LR: sequential modified LR test statistic (each test at 5%level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

4.4 The Results of Granger Causality Test

The Granger causality test with the pairwise granger causality test was carried out to determine the relationship between the variables in the study as a group and using lag 1. The results of the Granger causality test with the Pairwise Granger Causality Test showed there was a causal relationship between GDP and DEPM, there was a causal relationship between BHASIL and DEPM, there was a relationship INFLATION causality to GDP, There is a causality relationship INFLATION to BIRATE, There is a causal relationship BIRATE to BHASIL.

Table 4. The Result of Granger Causality Test

Pairwise Granger Causality Tests

Date: 11/09/21 Time: 12:05

Sample: 2015M01 2020M12

Lags: 1

Null Hypothesis:	Obs	F-Statistics	Prob.
LNPDB does not Granger Cause LNDEPM	71	13.0809	0.0006
LNDEPM does not Granger Cause LNPDB		2.57898	0.1130
BIRATE does not Granger Cause LNDEPM	71	2.87387	0.0946
LNDEPM does not Granger Cause BIRATE		2.44701	0.1224
INFLATION does not Granger Cause LNDEPM	71	3.21066	0.0776
LNDEPM does not Granger Cause INFLATION		0.24958	0.6190
BHASIL does not Granger Cause LNDEPM	71	5.47742	0.0223
LNDEPM does not Granger Cause BHASIL		2.74739	0.1020
BIRATE does not Granger Cause LNPDB	71	0.51631	0.4749
LNPDB does not Granger Cause BIRATE		0.07935	0.7790
INFLATION does not Granger Cause LNPDB	71	5.56819	0.0212
LNPDB does not Granger Cause INFLATION		0.05036	0.8231
BHASIL does not Granger Cause LNPDB	71	1.78980	0.1854
LNPDB does not Granger Cause BHASIL		2.81209	0.0982
INFLATION does not Granger Cause BIRATE	71	4.29310	0.0421
BIRATE does not Granger Cause INFLATION		0.12683	0.7228
BHASIL does not Granger Cause BIRATE	71	0.02519	0.8744
BIRATE does not Granger Cause BHASIL		5.33650	0.0239
BHASIL does not Granger Cause INFLATION	71	0.14740	0.7022
INFLATION does not Granger Cause BHASIL		18.6291	5.E-05

4.5 The Results of Cointegration Test

The results of the cointegration test will determine the analytical method to be used, VAR first difference or VECM. The results of cointegration testing with trace statistics and max-eigen statistics at lag 1 show that for each equation there are only 2 cointegration ranks at the 5% significance level with an asterisk (*). Thus, the equation must be solved using the Vector Error Correction Model (VECM) method.

Table 5. The Results of Cointegration Test

Date: 11/09/21 Time: 12:14

Sample (adjusted): 2015M03 2020M12

Included observations: 70 after adjustments

Trend assumption: Linear deterministic trend

Series: LNDEPM LNPDB BIRATE INFLATION BHASIL

Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistics	Critical Value	Prob.**
None *	0.457594	87.16122	69.81889	0.0011
At most 1	0.310601	44.33945	47.85613	0.1030
At most 2	0.124463	18.30396	29.79707	0.5437
At most 3	0.080805	8.999700	15.49471	0.3654
At most 4	0.043343	3.101695	3.841466	0.0782

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistics	Critical Value	Prob.**
None *	0.457594	42.82177	33.87687	0.0033
At most 1	0.310601	26.03549	27.58434	0.0778
At most 2	0.124463	9.304262	21.13162	0.8072
At most 3	0.080805	5.898005	14.26460	0.6263
At most 4	0.043343	3.101695	3.841466	0.0782

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

a. Vector Error Correction Model (VECM)

1. Long-Term VECM Estimation Results

Table 6. Long-Term VECM Estimation Results

Endogenous Variables	Exogenous Variable	Coefficient	SE	T-Stats
	C	8.924825		

LNDEP)	LNPDB(-1)	-1.961238	(0.27599)	[-7.10606]
	BIRATE(-1)	7.020052	(2.34268)	[2.99959]
	INFLATION(-1)	18.83091	(2.68734)	[7.00727]
	RESULT(-1)	-49.72031	(8.01105)	[-6.20647]

Based on the table above, it can show the influence of variables from the long-term equation, including:

- The GDP variable has a negative and significant effect on DEPM with a statistical value of -7.10606, where from the long-term equation it can be seen that a change of 1 billion GDP will reduce DEPM by 1.96 billion.
- The BI RATE variable has a positive and significant effect on DEPM with a statistical value of 2.99659, where from the long-term equation it can be seen that a 1% change in BI RATE will increase DEPM by 7.02 billion.
- The INFLATION variable has a positive and significant effect on DEPM with a statistical value of 7.00727 where from the long-term equation it can be seen that a 1% change in INFLATION will increase DEPM by 18.83 billion.
- The BHASIL variable has a negative and significant effect on DEPM with a statistical value of -6.20647 where from the long-term equation it can be seen that a 1% change in BHASIL will reduce DEPM by 49.72 billion.

2. DEPM Short-Term VECM Estimation Results

From the results of the short-term VECM estimation, it can be seen that there is no short-term relationship for all variables that affect DEPM because there is no statistical value $> \pm 1.99$.

Table 7. DEPM Short-Term VECM Estimation Results

Endogenous Variables	Exogenous Variable	Coefficient	SE	T-Stats	R-Square
D(LNDEPM(-1))	CointEq1	-0.053889	(0.03921)	[-1.37452]	R-Square = 0.118419 Adj R Square = 0.034459 F-Statistics = 1.410425
	D(LNDEPM(-1))	-0.193290	(0.11991)	[-1.61196]	
	D(LNPDB(-1))	0.072166	(0.16917)	[0.42660]	
	D(BIRATE(-1))	1.670828	(2.42408)	[0.68926]	
	D(INFLATION(-1))	-0.677729	(1.12237)	[-0.60384]	
	D(RESULT(-1))	-1.352289	(1.62934)	[-0.82996]	

3. GDP Short-Term VECM Estimation Results

The short-term VECM estimation results which can be seen from the following table show that GDP has a relationship with the variable itself, namely GDP (t-statistics = -4.15622) with a coefficient value = -0.498519.

Table 8. GDP Short-Term VECM Estimation Results

Variable endogenous	Exogenous Variable	Coefficient	SE	T-Stats	R-Square
	CointEq1	-0.009581	(0.02780)	[-0.34467]	R-Square =

D(LNPDB(-1))	D(LNDEPM(-1))	0.007934	(0.08502)	[0.09332]	0.261956 Adj R-Square = 0.191666 F-Statistics = 3.72679
	D(LNPDB(-1))	-0.498519	(0.11995)	[-4.15622]	
	D(BIRATE(-1))	1.255832	(1.71874)	[0.73067]	
	D(INFLATION(-1))	-0.773927	(0.79579)	[-0.97252]	
	D(RESULT(-1))	1.023641	(1.15525)	[0.88608]	

4. BI RATE Short Term VECM Estimation Results

The following short-term VECM estimation results show that BIRATE has a relationship with the variable itself, namely BIRATE (t-statistic = 2.228131) with coefficient value = 0.263331.

Table 9. BI Rate Short Term VECM Estimation Results

D(BIRATE(-1))	CointEq1	0.006975	(0.00191)	[3.64926]	R-Square = 0.370655 Adj R-Square = 0.31071 F-Stats = 6.184006
	D(LNDEPM(-1))	0.000315	(0.00585)	[0.05395]	
	D(LNPDB(-1))	0.003487	(0.00825)	[0.42283]	
	D(BIRATE(-1))	0.263331	(0.11818)	[2.22813]	
	D(INFLATION(-1))	-0.085929	(0.05472)	[-1.57031]	
	D(RESULT(-1))	0.094145	(0.07944)	[1.18515]	

5. VECM Short-Term Estimation Results INFLATION

The following short-term VECM estimation results show that INFLATION has a relationship with the GDP variable (t-statistic = 3.33937) with a coefficient value of 0.061484 and has a relationship with the inflation variable itself (t-statistic = 2.12116) with a coefficient value of 0.259114.

Table 10. VECM Short-Term Estimation Results Inflation

Endogenous Variables	Exogenous Variable	Coefficient	SE	T-Stats	R-Square
D(INFLATION(-1))	CointEq1	-0.005037	(0.00427)	[-1.18046]	R-Square = 0.283161 Adj R-Square
	D(LNDEPM(-1))	-0.003254	(0.01305)	[-0.24936]	
	D(LNPDB(-1))	0.061484	(0.01841)	[3.33937]	
	D(BIRATE(-1))	0.399138	(0.26383)	[1.51285]	
	D(INFLATION(-1))	0.259114	(0.12216)	[2.12116]	
	D(RESULT(-1))	-0.373378	(0.17733)	[-2.10551]	0.214891 F-Stats = 4.147641

6. VECM Short Term Estimation Results BHASIL

The following short-term VECM estimation results show that there is no single variable that affects the BHASIL variable in the short-term relationship.

Table 11. VECM Short Term Estimation Results BHASIL

Variable Endogen	Exogenous Variable	Coefficient	SE	T-Stats	R-Square
D(RESULT(-1))	CointEq1	0.013109	(0.00272)	[4.82043]	R-Square = 0.422176 Adj R-Square = 0.367145 F-Stats = 7.671624
	D(LNDEPM(-1))	-0.006229	(0.00832)	[-0.74885]	
	D(LNPDB(-1))	0.015667	(0.01173)	[1.33512]	
	D(BIRATE(-1))	-0.139441	(0.16815)	[-0.82927]	
	D(INFLATION(-1))	-0.113360	(0.07786)	[-1.45604]	
	D(RESULT(-1))	-0.153957	(0.11302)	[-1.36219]	

b. The Analysis of Impulse Response Function (IRF)

IRF analysis is used to explain how long it takes a variable to respond to changes that occur in other variables. In addition, IRF can also explain the impact of endogenous variable shocks which directly affect the variable itself and also other endogenous variables through the dynamic structure of the VECM model. The response of a variable in the short term can be known by the response of a variable that is significant and tends to change. While the long-term response can be known by the response of a variable that tends to be consistent and getting smaller from time to time. IRF testing in this study uses a period of 100 (one hundred) periods.

1. DEPM Variable IRF

Table 12. The Order of DEPM Responses to other Variables in the Short and Long Run

Serial No.	Short-term				Long-term	
	Shock	Variable	Value	Stable	Variable	Value
1	8	DEPM	0.025915	20	DEPM	0.026946
2	15	RESULT	0.002903	20	RESULT	0.005642
3	12	GDP	0.002672	15	INFLATION	-0.00835
4	2	BI Rate	0.001975	15	BI RATE	-0.00145
5	12	INFLATION	-0.00545	15	GDP	-0.00135

2. GDP Variable IRF

Table 13. The Order of GDP Response to other Variables in the Short and Long Run

Serial No.	Short-term				Long-term	
	Shock	Variable	Value	Stable	Variable	Value
1	13	GDP	0.011435	14	GDP	0.014389

2	12	RESULT	0.003282	13	DEPM	0.002579
3	13	DEPM	0.002144	14	BI RATE	0.002108
4	15	BI RATE	0.001585	20	INFLATION	-0.00095
5	12	INFLATION	-0.00286	13	RESULT	-0.00042

3. IRF Variable BIRATE

Table 14. The Order of BI RATE Responses to other Variables in the Short and Long Term

Serial No.	Short-term				Long-term	
	Shock	Variable	Value	Stable	Variable	Value
1	15	BI RATE	0.002201	20	BI RATE	0.003298
2	13	RESULT	-0.00055	14	INFLATION	0.001049
3	15	GDP	-0.00025	20	DEPM	0.000190
4	13	DEPM	5.16E-05	14	RESULT	-0.00176
5	15	INFLATION	8.31E-05	20	GDP	-7.43E-05

4. IRF Variable INFLATION

Table 15. The Order of INFLATION's Response to other Variables in the Short Run and Long Run

Serial No.	Short-term				Long-term	
	Shock	Variable	Value	Stable	Variable	Value
1	12	INFLATION	0.003980	13	INFLATION	0.003559
2	11	GDP	0.002826	12	GDP	0.002328
3	12	BI RATE	0.000380	13	BI RATE	0.000591
4	11	RESULT	-0.00027	12	RESULT	0.000246
5	20	DEPM	1.18E-06	30	DEPM	2.89E-06

5. IRF Variable Profit Sharing

Table 16. The order of the Responses for HASL to other Variables in the Short and Long Term

Serial No.	Short-term				Long-term	
	Shock	Variable	Value	Stable	Variable	Value
1	20	RESULT	0.002188	30	INFLATION	0.001366
2	12	DEPM	0.000489	13	BI RATE	0.000577
3	20	INFLATION	0.000291	30	DEPM	0.000468
4	15	GDP	0.000200	20	GDP	0.000277
5	15	BI RATE	-0.00036	20	RESULT	-2.52E-05

6. Analysis Variance Decomposition (VD)

Analysis Variance Decomposition (VD) or known as Forecast Error Variance Decomposition (FEVD) aims to measure the contribution and composition of certain variables to other variables.

c. DEPM Variable FEVD

Table 17. Order of Dominance Variance Decomposition of DEPM

No	Beginning (2)		Middle (25-50)		End (100)	
	Variable	Value	Variable	Value	Variable	Value
1	DEPM	97.29495	DEPM	88.46387	DEPM	87.60796
2	INFLATIO N	1.634296	INFLATIO N	7.647976	INFLATIO N	8.195380
3	RESULT	0.463630	RESULT	3.435947	RESULT	3.729861
4	GDP	0.392573	GDP	0.237739	BIRATE	0.243540
5	BIRATE	0.214554	BI RATE	0.214469	GDP	0.223255

d. GDP Variable FEVD

Table 18. Order of Dominance Variance Decomposition of PDB

No	Beginning (2)		Middle (25-50)		End (100)	
	Variable	Value	Variable	Value	Variable	Value
1	GDP	94.98240	GDP	94.61127	GDP	94.49.006
2	DEPM	1.992705	DEPM	2.889137	DEPM	2.997259
3	RESULT	1.520081	BIRATE	1.652920	BIRATE	1.930337
4	INFLATION	1.150174	INFLATION	0.597962	INFLATION	0.457722
5	BIRATE	0.354641	RESULT	0.248709	RESULT	0.124622

e. BI RATE Variable FEVD

Table 19. Order of Dominance Variance Decomposition of BI RATE

No	Beginning (2)		Middle (25-50)		End (100)	
	Variable	Value	Variable	Value	Variable	Value
1	BIRATE	95.18131	BIRATE	73.22042	BIRATE	72.24398
2	RESULT	3.904331	RESULT	19.69513	RESULT	20.30556
3	GDP	0.780502	INFLATION	6.760359	INFLATION	7.163500
4	INFLATION	0.088119	DEPM	0.228365	DEPM	0.236976
5	DEPM	0.045743	GDP	0.095722	GDP	0.049982

f. FEVD Variable INFLATION

Table 20. Order of Dominance Variance Decomposition of INFLATION

No	Beginning (2)		Middle (25-50)		End (100)	
	Variable	Value	Variable	Value	Variable	Value
1	INFLATION	74.88384	INFLATION	68.90407	INFLATION	68.58535

2	GDP	24.37293	GDP	28.95696	GDP	29.21766
3	BIRATE	0.515888	BIRATE	1.775235	BIRATE	1.861041
4	RESULT	0.195285	RESULT	0.361089	RESULT	0.335261
5	DEPM	0.032063	DEPM	0.00646	DEPM	0.000695

g. FEVD Variable Profit Sharing

Table 21. Dominance Order of Variance Decomposition of RESULTS

No	Beginning (2)		Middle (25-50)		End (100)	
	Variable	Value	Variable	Value	Variable	Value
1	RESULT	84.79456	INFLATION	68.50080	INFLATION	73.24095
2	INFLATION	6.014016	BIRATE	11.21144	BIRATE	12.83764
3	DEPM	5.704997	DEPM	8.807950	DEPM	8.792706
4	BIRATE	2.744558	RESULT	8.662332	GDP	3.006755
5	GDP	0.741867	GDP	2.817475	RESULT	2.121949

V. Conclusion

Growth depositmudharabah is something size for know how big the development of Islamic banking in Indonesia. In this case, the variables of GDP, BI Rate, Inflation and Profit Sharing are used to analyze the interdependence of these variables on mudharabah deposits. Based on the results of the Granger causality test using lag 1, there is a one-way causality relationship from X to Y, namely the relationship between GDP and Mudharabah Deposits. According to research conducted by Cholid Fadil that GDP has a relationship with Mudharabah Deposits. This is because the consumption and storage behavior of a person is still influenced by changes in income. If people's incomes increase, people's ability to save their funds will also increase.

There is a relationship between Profit Sharing on Mudharabah Deposits. This is according to research conducted by Asmawarna Sinaga, that the profit sharing has a causal relationship to the Mudharabah Deposit. This is because the purpose of customers depositing their funds in Islamic banking is to seek profit. If the profit sharing offered by Islamic banks is high, more people will be interested in investing their funds, otherwise if the profit sharing offered by Islamic banks is low, customers will choose other, more profitable investments.

There is a relationship between inflation and GDP. This is in accordance with research conducted by Dikson Silitonga, which states that inflation has a relationship to GDP. Inflation causes the purchasing power of income (real income) to decrease, especially for people with small and fixed incomes. According to Sadono Sukirno, high inflation will not promote economic development, rising costs will make production activities unprofitable.

There is a relationship between inflation and the BI Rate. Research conducted by Lilis Setiowati concluded that there is a one-way causality relationship between inflation and the BI Rate.

There is a relationship between the BI Rate and Profit Sharing. The research conducted stated that the bi rate had an effect on the profit sharing. This indicates that the bi rate is still a shadow of Islamic commercial banks in Indonesia and is used as a reference for determining the level of profit sharing in Indonesia.

In the long term, the BI Rate and INFLATION variables have a positive and significant effect on Mudharabah Deposits, while the GDP and Profit Sharing variables have a negative and significant effect on Mudharabah Deposits. In the short term there is no relationship for

all variables that affect Mudharabah Deposits. The response of all variables in the short term is stable and only experiences a slight shock. The Mudharabah Deposit variable plays a very dominant role from the beginning to the end with a composition of >87%.

In the long run, GDP has a relationship with certain variables. While in the short term that has a relationship with the GDP variable is the GDP variable itself. The response of all variables in the short term is stable and only experiences a slight shock. The GDP variable plays a very dominant role from the beginning to the end with a composition of >94%.

In the long term, the BI Rate has a relationship with certain variables. Meanwhile, in the short term, the BI Rate variable has a relationship with the BI Rate variable itself. The response of all variables in the short term is stable and only experiences a slight shock. The BI Rate variable plays a very dominant role from the beginning to the end with a composition of >72%.

In the long run INFLATION has a relationship with certain variables. Meanwhile, in the short term, the variables that have a relationship with INFLATION are the GDP variable and the INFLATION variable itself. The response of all variables in the short term is stable and only experiences a slight shock. The INFLATION variable plays a very dominant role from the beginning to the end with a composition of > 68%.

In the long term BHASIL has a relationship with certain variables. While in the short term there is no relationship for all variables that affect the BHASIL variable. The response of all variables in the short term is stable and only experiences a slight shock. In the analysis of variance decomposition of the BHASIL variable, it turns out that the dominant role of the INFLATION variable is from the middle to the end of the period with a composition of >73%.

References

- Antonio Syafii Muhammad, Bank Syariah Dari Teori Kepraktik, Jakarta : Gema Insane Press, 2007.
- Bank Sentral Republik Indonesia , www.bi.go.id.
- Dianto, E., et.al. (2020). BNI Marketing Strategy for Credit Cards in Dealing Global Competition in State Bank Indonesia (Persero) Tbk Banda Aceh Branch Office. Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Vol 3 (2): 1134-1146.
- Diskon Silitinga, "Pengaruh Inflasi Terhadap Produk Domestik Bruto (Pdb) Indonesia Pada Periode Tahun 2010-2020", ESENSI: Jurnal Manajemen Bisnis, Vol. 24 No. 1 / 2021
- Hasyim Ibrahim Ali, Ekonomi Makro: Edisi Pertama Jakarta: Prenadamedia Group, 2016.
- Huda Nurul, Ekonomi Makro Islam, Jakarta : Kencana Prenada Media Group, 2013.
- Kasmir, Dasar-Dasar Perbankan, Jakarta : Raja Grafindo Persada, ed. Revisi, 2012.
- Kuncoro Mudrajat, Metode Riset: Untuk Bisnis Dan Ekonomi, Jakarta : Erlangga, 2002.
- Otoritas Jasa Keuangan "Monthly Statistics Report Of Indonesian Islamic Banking Statistic Februari 2020.
- Muhammad, Manajemen Bank Syariah, Edisi Revisi Kedua, Yogyakarta: Sekolah Tinggi Ilmu Manajemen YKPN, 2011.
- Rivai Veithzal, Islamic Banking, Jakarta : Bumi Aksara, 2009.
- Rosmika, T.E., Mulia, A., and Chairy, P. (2019). The Role of BRI Bank Medan Perjuangan Unit for Customer's Households, Indonesia. Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Vol 2 (4): 363-374.
- Sinaga Asmawarna "Analisis Pengaruh Tingkat Suku Bunga Bi Rate, Bagi Hasil, Inflasi Dan Harga Emas Terhadap Jumlah Deposito Mudharabah Perbankan Syariah Periode 2010 - 2015 ", Tesis, Program Pascasarjana Universitas Islam Negeri Sumatera Utara, 2017.

- Setioeti, L. 2014. Analisis Hubungan Kausalitas Antara Bi Rate Dengan Inflasi Di Indonesia Periode Juli 2006 - Juli 2013.
- Sholihin Ifham Ahmad , Buku Pintar Ekonomi Syariah, Jakarta : Gramedia Pustaka Utama, 2010.
- Sukirno, Sadono, Makro Ekonomi : Teori Pengantar Jakarta: PT. Raja Grafindo Persada, 2015.
- Tarigan, N.M., and Setiawan, H. (2020). The Effect of Employee Competence on Increasing Employee Motivation in Sumut Bank of Sharia Unit, North Sumatera. Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Vol 3 (2): 858-867.